

**Civil Engineering Department
De La Salle University - Manila**

**Experiment No. 2
Data Sheet for Sieve Analysis of Fine Aggregates**

Performed By: Daniel Villanueva, Chloe Felix, Arianna Ongto & Janna Caringal

Date Tested: November 09, 2020

Room Temperature: 28°C

Weather: Cloudy with a bit of rain

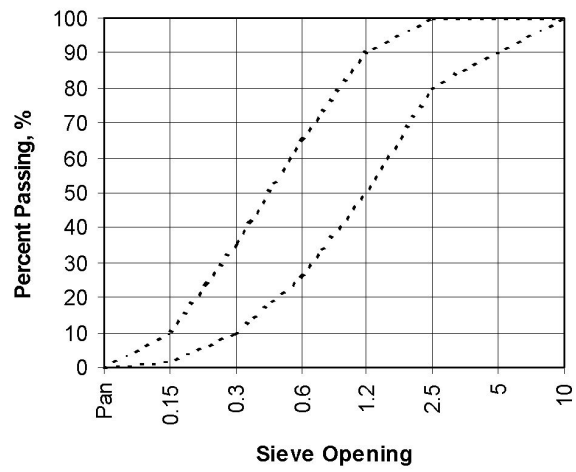
Sample Code/ Description: Sand

Sieve No. (Sieve Opening)	Retained in Each Sieve		Cumulative Retained		Percent
	Weight (g)	Percentage (%)	Weight (g)	Percentage (%)	Passing (%)
10 mm	1.8	0.306	1.8	0.306	99.694
5 mm	12.6	2.141	14.4	2.447	97.553
2.5 mm	29.8	5.064	44.2	7.511	92.489
1.2 mm	80.2	13.628	124.4	21.138	78.862
0.6 mm	123.8	21.037	248.2	42.175	57.825
0.3 mm	176.1	29.924	424.3	72.099	27.901
0.15 mm	109.8	18.658	534.1	90.756	9.244
*Pan	54.4	9.244	588.5	100	0
Total	588.5			236.432	

* Not included in the calculation of FM

Percent Error = $100 * (589.2 - 588.5)/589.2 = 0.12\%$

Fineness Modulus (FM) = $236.432/100 = 2.364$



Grading Curve for Fine Aggregates

**Civil Engineering Department
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**Experiment No. 3
Data Sheet for Sieve Analysis of Coarse Aggregates**

Performed By: Daniel Villanueva, Chloe Felix, Arianna Ongto & Janna Caringal

Date Tested: November 09, 2020

Room Temperature: 28°C

Weather: Cloudy with a bit of rain

Sample Code/ Description: Gravel

Sieve No. (Sieve Opening)	Retained in Each Sieve		Cumulative Retained		Percent
	Weight (g)	Percentage (%)	Weight (g)	Percentage (%)	Passing (%)
37.5 mm	0	0.000	0	0.000	100.000
* 25.0 mm	599.6	10.162	599.6	10.162	89.838
19.0 mm	952.3	16.139	1551.9	26.301	73.699
* 12.5 mm	2037.5	34.531	3589.4	60.832	39.168
9.5 mm	1602.5	27.159	5191.9	87.991	12.009
4.75 mm	692.6	11.738	5884.5	99.729	0.271
2.36 mm	4.2	0.071	5888.7	99.800	0.200
* Pan	11.8	0.200	5900.5	100	0
Total	5900.5			384.815	

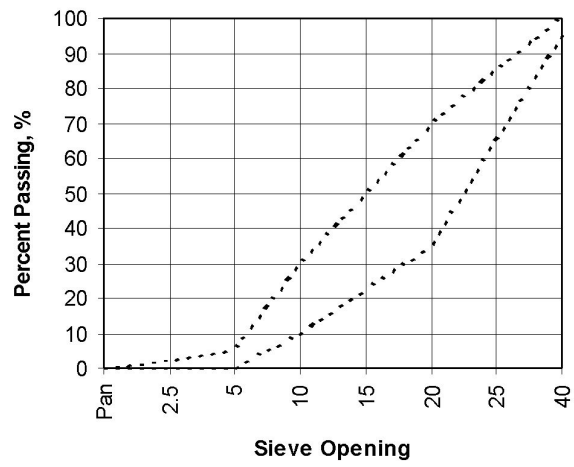
* Not included in the calculation of FM

Note: Calculation of FM includes 1.2, 0.6, 0.3, and 0.15 sieves, hence,

$$FM = 4.0 + (\text{Total cumulative percentage retained}) / 100.$$

$$\text{Percent Error} = 100 * (5910.5 - 5900.5) / 5910.5 = 0.17\%$$

$$\text{Fineness Modulus (FM)} = 4 + [(0 + 26.301 + 87.991 + 99.729 + 99.8) / 100] = 7.138$$



Grading Curve for Coarse Aggregates